

ARGUMENTS/REMARKS

Before entry of this Amendment and Response, the status of the application according to the pending Office action is as follows:

- Claims 1-12, 17-18, 20, and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 6,041,518 to Polycarpe (“Polycarpe”), in view of United States Patent No. 5,699,627 to Castro (“Castro”), and United States Patent No. 896,488 to Valiant (“Valiant”).
- Claims 13-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Polycarpe, Castro, and Valiant, and further in view of United States Patent No. 5,675,914 to Cintron (“Cintron”).
- Claims 15-16, and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Polycarpe, Castro, and Valiant, and further in view of United States Patent No. 5,319,866 to Foley et al. (“Foley”).
- Claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Polycarpe, Castro, and Valiant, and further in view of United States Patent No. 5,992,052 to Moretti (“Moretti”).
- Claims 23-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Polycarpe, Castro, and Valiant, and further in view of United States Patent No. 6,401,364 to Burt (“Burt”).

Applicants hereby amend independent claims 1 and 22 to add the language “having a ground engaging surface” and “such that there exists fluidic communication between at least one of the first openings and the at least one third opening.” No new matter has been added thereby.

Support for the amendment can be found at least in paragraph [0012], [0021], [0026], [0029], [0034] and FIG. 1A.

Claims 1-27 are currently pending and presented for reconsideration. In view of the above amendments and following remarks, Applicants respectfully request reconsideration and withdrawal of all grounds of rejection and passage of all pending claims to allowance.

1. Claims 1-12, 17-18, 20 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Polycarpe, in view of Castro and Valiant. Applicants respectfully traverse this rejection as applied to the claims, as amended.

Polycarpe appears to describe a three-layered shoe sole, composed of a flexible pad 15, a rigid pad 20, and a bottom pad 19. See Polycarpe, col. 3, ll. 31-33; FIG. 4. A plurality of aligned air cavities 9 and holes 16 penetrate both the flexible pad 15, and the rigid pad 20. See Polycarpe, col. 3, ll. 44-46; FIG. 4. Formed generally longitudinally on an upper surface of the bottom pad 19 are a plurality of grooves 22, which are joined to a larger opening 21 containing a fan 7 and a heating element 8. See Polycarpe, col. 3, ll. 20-26 and 36-40. In operation, the fan 7 purportedly draws air into the boot via one or more air entrances 3, forces the air across the heating element 8, and delivers it through the grooves 22 into the interior of the shoe through the cavities 9 and holes 16. See Polycarpe, FIG. 1.

The invention described in Polycarpe is apparently directed to controlling the climate in the interior of a shoe such that the interior humidity is decreased and the wearer's foot remains dry. See Polycarpe, col. 2, ll. 2-3 ("air circulates around the entire shoe and thus *keeps the feet of a user dry.*" (emphasis added)); col. 2, ll. 6-7 ("air circulates around the shoe thus *keeping the feet warm and dry.*" (emphasis added)); col. 3, ll. 18-19 ("[a]s a result, the feet of the user *remain*

*fresh and dry.*” (emphasis added)); col. 3, ll. 25-26 (“thus the feet of the user *remain dry.*” (emphasis added)). Moreover, Polycarpe provides plugs 4 disposed near each air entrance 3, “to prevent water from entering the shoe.” See Polycarpe, col. 3, ll. 1, 28-30.

Castro appears to describe a system for the manufacture of cushioned shoes. An insole 20 contains a plurality of holes 21, 29 for both cushioning and ventilation purposes. See Castro, col. 3, ll. 29-37. An overinsole 24 is located directly above the insole 20, such that “it is in direct contact with the foot’s sole.” See Castro, col. 3, ll. 58-60. The overinsole 24 includes a plurality of minute holes 27 that are in airflow communication with the holes 21 in the insole 20. See Castro, col. 3, l. 67 – col. 4, l. 2. Components of the shoe located below the insole 20 include, *inter alia*, an intersole 33 and a dampening and anti-skid sole 40. See Castro, col. 3, ll. 15-16; col. 4, ll. 17-18; FIG. 1. The sole 40 includes an intersole element 43 with multiple holes 44 and a plantar piece 45 with an antiskid lower surface 46. See Castro, col. 5, ll. 29-33.

During use, air is purportedly pumped through the various holes 21 and channels 22 within the sole each time the user steps. See Castro, col. 3, ll. 38-40. Also, it appears from the disclosure that the ventilation system of Castro “creates a continuous air flow of the *same thermic air* that surrounds the foot’s sole and the zones in contact with the floor.” See Castro, col. 3, ll. 27-29 (emphasis added). Further, the plantar piece 45 appears to fit within an opening in the sole element 41, thereby closing off the opening and preventing any outside air or moisture from entering the shoe. See Castro, FIG. 11.

Valiant appears to disclose a ventilated shoe that includes a plurality of holes  $c^2$ , which pierce the insole of a shoe and are connected by channels  $c'$ . See Valiant, col. 2, ll. 74-78; FIG.

1. A tube D penetrates a side of the heel of the shoe and can be closed by a plug D' "to prevent the ingress of moisture or water." See Valiant, col. 2, ll. 81-84; FIG. 1.

In contrast to all three references described above, Applicants claim, in amended independent claims 1 and 22, a sole having an insole layer defining a plurality of first openings and a support layer defining a plurality of second openings in combination with ***"an outsole layer having a ground engaging surface defining at least one third opening extending therethrough that at least partly overlaps the plurality of second openings, such that there exists fluidic communication between at least one of the first openings and the at least one third opening."***

Applicants respectfully submit that neither Polycarpe nor Castro, nor Valiant, alone or in proper combination, teaches or suggests at least a sole comprising ***"an outsole layer having a ground engaging surface defining at least one third opening extending therethrough that at least partly overlaps the plurality of second openings, such that there exists fluidic communication between at least one of the first openings and the at least one third opening."***

Specifically, none of the references teach an opening in a ground engaging surface of the outsole that at least partly overlaps the plurality of second openings in a support layer. For example, Polycarpe and Valiant do not have any openings in their ground engaging surface and, in fact, teach away from having openings in their ground engaging surfaces. Both Polycarpe and Valiant include plugs (4 and D' respectively) to prevent water or moisture from entering the shoe. See Polycarpe, col. 3, ll. 28-30; and Valiant, col. 2, ll. 82-84. While Castro has an opening formed in the sole element 41 during manufacture of the sole, the opening is plugged by the plantar piece 45 in the finished sole. As such, neither Polycarpe nor Castro nor Valiant, alone or in proper combination, is capable of providing fluid communication between at least one third

opening in an outsole and at least one first opening in an insole layer, as claimed in independent claims 1 and 22.

Moreover, it is well settled that to combine references under 35 U.S.C. § 103, there must be some suggestion or motivation to do so stated in the references themselves or arising out of the knowledge generally available to one of ordinary skill in the art that lies outside the patent application. See, e.g., MPEP § 2142. If there is no such motivation or suggestion, a 35 U.S.C. § 103(a) rejection is improper. As stated in MPEP § 2143.01, “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination.” In re Mills, 916 F.2d 680, 16 USPQ 1430 (Fed. Cir. 1990).

Applicants respectfully submit that there is no suggestion or motivation, either in the references themselves or in the knowledge generally available in the art, to modify Polycarpe in view of Castro and Valiant, because such a combination would change the principle operation of the references. As stated in MPEP § 2143.01, “If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.” In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). MPEP § 2143.01. The Office action’s proposed modification of Polycarpe in view of Castro (*i.e.*, an outer sole having an opening) would render Polycarpe insufficient for its purpose, which is to control humidity within the shoe and keep the user’s foot “dry.” See Polycarpe, col. 2, ll. 2-3 (“air circulates around the entire shoe and thus *keeps the feet of a user dry*.” (emphasis added)); col. 2, ll. 6-7 (“air circulates around the shoe thus *keeping the feet warm and dry*.” (emphasis added)); col. 3, ll. 18-19 (“[a]s a

result, the feet of the user *remain fresh and dry.*” (emphasis added)); col. 3, ll. 25-26 (“thus the feet of the user *remain dry.*” (emphasis added)).

In In re Ratti, the Office action rejected claims pertaining to an oil seal comprising a bore where the claims were directed to “resilient spring fingers inserted in a resilient spring member.” See, MPEP § 2143.01. The claims were rejected as obvious over a primary reference that taught an oil seal comprising a rigid bore. See, MPEP § 2143.01. In In re Ratti, however, the Office action rejection was reversed, because the “suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.” In re Ratti, 270 F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959). See, MPEP § 2143.01.

Accordingly, Applicants submit that the proposed combination of Polycarpe with Castro and Valiant would render Polycarpe insufficient for its claimed purpose. In particular, an opening in the ground engaging surface of Polycarpe would allow for the introduction of water to the interior of the shoe. Such a combination would, at a minimum, increase the interior humidity of the shoe by allowing water into the shoe. In fact, Polycarpe expressly guards against the introduction of water at the top of the shoe by providing plugs 4. It seems likely that an opening on the ground engaging surface of the shoe described in Polycarpe would be completely undesirable.

Applicants, therefore, respectfully submit that amended independent claims 1 and 22 are patentable over Polycarpe in view of Castro and Valiant. Because claims 2-12, 17-18, and 20 depend, either directly or indirectly, from amended independent claim 1 and include all the

limitations thereof, Applicants respectfully submit that these claims are also patentable.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-12, 17-18, 20, and 22 under 35 USC § 103(a) as being unpatentable over Polycarpe in view of Castro and Valiant.

2. Claims 13-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Polycarpe, Castro, and Valiant, and further in view of Cintron. Applicants respectfully traverse this rejection as applied to the claims, as amended.

Cintron appears to teach a removable footbed for a shoe to circulate air and provide shock absorption. The footbed 10 is comprised of three main layers, a first layer 20, a second layer 30, and a third layer 40. See Cintron, col. 2, ll. 61-62; col. 3, ll. 17-18, 34-35; FIG. 2. A plurality of ventilation holes 23, 24 are disposed the layers, the third layer 40 including a series of interconnected channels (the channel system 58) and ultimately a concave bump. See Cintron, col. 4, ll. 16-28; FIG. 4. The concave bump 46 purportedly acts as a type of bellows, forcing air from the bump 46, through the channel system 58, and then through the ventilation holes 23, thus ventilating the wearer's foot. See Cintron, col. 7, ll. 18-28. Cintron does not describe any openings in the outer sole of the shoe, in fact, "[i]t is . . . an object of the present invention to provide an air-circulating footbed *which does not destroy the integrity of the exterior of the shoe.*" Cintron, col. 1, ll. 26-29 (emphasis added).

In contrast, Applicants' amended independent claim 1, from which claims 13-14 depend, recites, in part, a sole comprising "*an outsole layer having a ground engaging surface defining at least one third opening extending therethrough that at least partly overlaps the plurality of second openings, such that there exists fluidic communication between at least one of the first*

***openings and the at least one third opening.***” As discussed above in section 1, the combination of Polycarpe, Castro, and Valiant fails to render obvious Applicants’ amended independent claim 1, as that combination fails to teach or suggest at least a sole comprising ***“an outsole layer having a ground engaging surface defining at least one third opening extending therethrough that at least partly overlaps the plurality of second openings, such that there exists fluidic communication between at least one of the first openings and the at least one third opening.”***

The inclusion of Cintron fails to cure this deficiency, as Cintron too fails to describe a sole having the claimed features. In fact, one of the asserted objects of Cintron is “to provide an air-circulating footbed *which does not destroy the integrity of the exterior of the shoe,*” thereby teaching away from the claimed inclusion of an opening in the exterior sole of the shoe.

Applicants, therefore, respectfully submit that dependent claims 13-14 are patentable over Polycarpe in view of Castro and Valiant, and further in view of Cintron, as that combination fails to render obvious amended independent claim 1, from which claims 13-14 depend and include all the limitations thereof. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 13-14 under 35 USC § 103(a) as being unpatentable over Polycarpe in view of Castro and Valiant, and further in view of Cintron.

3. Claims 15-16 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Polycarpe, Castro, and Valiant, and further in view of Foley. Applicants respectfully traverse this rejection as applied to the claims, as amended.

Foley appears to describe an athletic shoe having a midsole substantially devoid of cushioning material. The shoe sole of Foley shows a void or an opening 56, generally located in the midsole 18 of the shoe. See Foley, col. 6, ll. 56-59; FIG. 5. To provide support to the foot, a



stiff arch member 24 is installed in the opening 56. See Foley, col. 5, ll. 50-54; FIGS. 2-4. A plurality of apertures 72 may be present in the stiff arch member 24, exposing a material 74, thus serving an aesthetic function. See Foley, col. 7, ll. 37-43. A plurality of material layers are disposed above the arch member 24, but none of those layers appear to have any holes, perforations, apertures, or openings. See Foley, col. 7, l. 65 – col. 8, l. 10.

As previously discussed, the combination of Polycarpe, Castro, and Valiant fails to render obvious Applicants' amended independent claim 1, from which claims 15-16 and 19 depend, because the combination fails to teach or suggest at least a sole comprising ***“an outsole layer having a ground engaging surface defining at least one third opening extending therethrough that at least partly overlaps the plurality of second openings, such that there exists fluidic communication between at least one of the first openings and the at least one third opening.”*** The inclusion of Foley fails to cure this deficiency, as Foley fails to teach any openings, holes, or apertures of any sort in the number of layers that are present above the arch support 24, thus, the claimed ***“fluidic communication between at least one of the first openings and the at least one third opening”*** is neither disclosed nor suggested.

Applicants, therefore, respectfully submit that dependent claims 15-16 and 19 are patentable over Polycarpe in view of Castro and Valiant, and further in view of Foley, as that combination fails to render obvious amended independent claim 1, from which claims 15-16 and 19 depend and include all the limitations thereof. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 15-16 and 19 under 35 USC § 103(a) as being unpatentable over Polycarpe in view of Castro and Valiant, and further in view of Foley.

4. Claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Polycarpe, Castro, and Valiant, and further in view of Moretti. Applicants respectfully traverse this rejection as applied to the claim, as amended.

Briefly, Moretti purports to describe a vapor permeable shoe. Specifically, the shoe 10 comprises a vapor-permeable upper 11 that is associated with a sole 12. The sole 12 has a tread 13 made of an elastomer that is shaped so as to form a plurality of domes 14 having a convexity directed toward the ground. Each one of the domes 14 has a minute through slit 15 which is normally closed by virtue of the elasticity of the material, *i.e.*, a one-way valve that opens in an over-pressure condition. The shoe 10 also comprises a vapor-permeable or perforated insole 17 and a waterproof and vapor-permeable membrane 18. See Moretti, col. 2, l. 63 – col. 3, l. 14.

In contrast, Applicants' dependent claim 21 depends directly from Applicants' amended independent claim 1, which claims a sole comprising "***an outsole layer having a ground engaging surface defining at least one third opening extending therethrough that at least partly overlaps the plurality of second openings, such that there exists fluidic communication between at least one of the first openings and the at least one third opening.***"

Applicant's respectfully submit that, as discussed above, the combination of Polycarpe, Castro, and Valiant fails to render obvious Applicants' independent claim 1, as that combination fails to teach or suggest at least a sole for an article of footwear comprising "***an outsole layer having a ground engaging surface defining at least one third opening extending therethrough that at least partly overlaps the plurality of second openings, such that there exists fluidic communication between at least one of the first openings and the at least one third opening.***" The inclusion of Moretti fails to cure this deficiency, as Moretti too fails to describe an outsole

layer having a third opening in the ground engaging surface that at least partly overlaps the plurality of second openings such that there exists fluidic communication between at least one of the first openings and the at least one third opening.

Specifically, Moretti does not disclose “*an outsole layer having a ground engaging surface defining at least one third opening therethrough.*” Moretti discloses an outsole having a plurality of normally closed one-way slit valves 15 disposed in a recessed portion of the outsole. See Moretti, FIGS. 2 and 3. Even if the normally closed one-way slit valves 15 were considered openings, which they are not, none of the slit valves 15 “*at least partly overlaps the plurality of second openings*” in the support layer.

Applicants, therefore, respectfully submit that dependent claim 21 is patentable over Polycarpe in view of Castro and Valiant, and further in view of Moretti, as that combination fails to render obvious amended independent claim 1, from which claim 21 depends and includes all the limitations thereof. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 21 under 35 U.S.C. § 103(a) as being unpatentable over Polycarpe in view of Castro and Valiant, and further in view of Moretti.

5. Claims 23-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Polycarpe, Castro, and Valiant, and further in view of Burt. Applicants respectfully traverse this rejection as applied to the claims, as amended.

Burt appears to disclose a ventilated shoe wherein the upper is constructed of at least two layers, which are made from a ventilated mesh material. The upper of the shoe 10 is described as being constructed of three layers, an external 20, a reinforcing 30, and an internal 40. See Burt, col. 4, ll. 35-39. The external 20 and internal 40 layers are constructed of a ventilated mesh

material. See Burt, col. 4, ll. 37-39. Burt discloses no particular construction of the *sole* of the shoe.

In contrast, Applicants' dependent claims 23-27 depend directly or indirectly from Applicants' amended independent claim 22, which claims a sole comprising ***"an outsole layer having a ground engaging surface defining at least one third opening extending therethrough that at least partly overlaps the plurality of second openings, such that there exists fluidic communication between at least one of the first openings and the at least one third opening."***

As discussed in section 1, the combination of Polycarpe, Castro, and Valiant fails to render obvious Applicants' amended independent claim 22, from which claims 23-27 depend, because the combination fails to teach or suggest at least a sole comprising ***"an outsole layer having a ground engaging surface defining at least one third opening extending therethrough that at least partly overlaps the plurality of second openings, such that there exists fluidic communication between at least one of the first openings and the at least one third opening."*** The inclusion of Burt fails to cure this deficiency, as Burt does not teach any openings, holes, or apertures of any sort in the sole, thus, the claimed ***"fluidic communication between at least one of the first openings and the at least one third opening"*** is neither disclosed nor suggested.

Applicants, therefore, respectfully submit that dependent claims 23-27 are patentable over Polycarpe in view of Castro and Valiant, and further in view of Burt, as that combination fails to render obvious amended independent claim 22, from which claims 23-27 depend and include all the limitations thereof. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 23-27 under 35 U.S.C. § 103(a) as being unpatentable over Polycarpe in view of Castro and Valiant, and further in view of Burt.

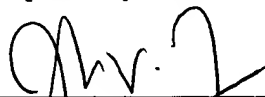
**CONCLUSION**

In view of the foregoing, Applicants respectfully request reconsideration, withdrawal of all grounds of rejection, and allowance of claims 1-27 in due course. The Examiner is invited to contact Applicants' undersigned representative by telephone at the number listed below to discuss any outstanding issues.

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Respectfully submitted,

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